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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/335,608

06/18/1999

TIMOTHY J. MOULSLEY

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08/23/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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EXAMINER

HYUN, SOON D

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/335,608

Applicant(s)

MOULSLEY, TIMOTHY J.

Examiner

Soon D. Hyun

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9-17 and 21-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,9-17 and 21-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 33-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claimed subject matter in each claim that the system operates in accordance with a telecommunication standard that includes an understand interpretation of what constitutes a time slot and term "time slot" is interpreted in accordance with the standard is not supported by the specification, and thus includes new matter situations.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 32-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In each claim, it is not clear what kind of standard is applied to interpret the term "time slot."

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 4-7, 9, 11, 15-17, 21, 22, and 25-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamalainen et al (U.S. Patent No. 6,477,176).

Regarding claims 1, 2, 6, 9 and 11, Hamalainen discloses a telecommunication system suitable for transmitting real-time data (speech) and non-real time packet data, comprising:

a first (a mobile communication system terminal in FIG. 1) and a second communication station (a base station BTS in FIG. 8c);

a dual mode channel for communication of both the real time and the non-real time data from the first to the second station, wherein the first station comprises a first transceiver which is operable to transmit both the real-time and the non-real-time data, the second station comprises a second transceiver which is operable to receive the real-time and/or the non-real-time data (col. 3, lines 29-67), the first station further comprises a controller (10) for generating an output data stream (FIG. 3) comprising the real-time data (speech signal), the controller also allocating non-real-time packet data

(col. 4, lines 25-38) to the output data stream when the data rate of the real-time is less than the full capacity of the dual mode single channel, which output data stream is transmitted by the first transceiver over the channel, wherein for at least part of output stream (a frame period in FIG. 3 is part of a multiframe, col. 4, line 33), the real time data and non-real time packets each have a respective non-zero minimum bit rate and combined bit rate less than a maximum value for the multiframe period, i.e., the terminal has no speech information to transmit (DTX), wherein the part of the output stream is a single time slot (a period of the frame in FIG. 3).

Regarding claims 4 and 7, Hamalainen further discloses that the terminal comprises a buffer (9) for storing the non-real-time packet data for transmission.

Regarding claim 5, Hamalainen further discloses that the invention is applied to a cellular communication system (FIG. 8c) comprising a base station 33 (BTS) as the first transceiver and a mobile station 32 (MS) as the second transceiver.

Regarding claim 10, refer to the discussion for claim 1. Examiner interprets that the single channel is the dual mode channel carrying the real time data and non-real time packet data in the multiframe.

Regarding claims 15 and 27, refer to the discussion claims 1 and 10.

Hamalainen discloses a receiving method (FIG. 2) comprising:

receiving a combined data from a transmission channel by a mobile communication system terminal in FIG. 2;

demodulating the data stream by a receiver (13); reading frame header (SP-ID or D-ID in FIG. 3) to determine which frames contain packet data and which frames contain speech data;

reconstituting the speech and packet data; and

providing the speech data to a speech decoder(3) and packet data output signal at distinct output devices (col. 4, lines 1-10), wherein the header indicates both the packet data and speech data being in a single dual mode channel, i.e., the header D-ID in a frame indicates both the packet data and speech data being in a single dual mode channel, because the packet data can be in the channel when the speech data is absent in the frame period, therefore, both speech data and packet data are in a dual mode channel of a multiframe (see the discussion for claims 1 and 10) having a plurality of frames.

Regarding claims 16, 21, and 25, refer to the discussion for the claims 1 and 10.

Hamalainen discloses a method comprising: accumulating non-real time packet data in a buffer (9 in FIG. 1);

allocating real-time data (speech) by a controller (10 in FIG. 1) to an output stream (FIG. 1);

determining when the real-time data does not require the full capacity of a transmission channel, i.e., a VAD (4 in FIG. 1) indicates the time of interruptions in the speech data;

allocating the non-real time packet data to the output data stream, when the real-time data does not require the full capacity of a transmission channel

allocating output data stream to a channel that occupies more than one slot (frame), i.e., multiframe in a transmission time frame.

Regarding claims 17 and 26, refer to the discussion for claims 1, 10, and 16.

Hamalainen discloses a method comprising:

accumulating non-real time packet data in a buffer (9 in FIG. 1);

allocating real-time data (speech) and the non-real time packet data in a variable proportions to multiple time segments (a plurality of frames in FIG. 3) within a time frame (a time of multiframe, col. 4, line 33) by a controller (10 in FIG. 1) to an output stream (FIG. 1) when the real-time data does not require the full capacity of a transmission channel; and

transmitting the time frame.

Regarding claim 22, refer to the discussion for claim 1, 10, and 15.

Hamalainen further discloses that the packet data and the speech data appear together in one single time slot (a time of multiframe, col. 4, line 33).

Regarding claim 28, Hamalainen discloses a method of transmitting an output data stream (FIG. 1) including both real-time data (speech) and non-real time data (data from a buffer 9 in a single time slot (a time period of multiframe, col. 4, line 33).

Regarding claim 29, the frame header D-ID in a frame (FIG. 3) indicates both real time and non-real time data resides in a single time slot, because the packet data can be in the multiframe when the speech data is absent in the frame period, thus both speech data and packet data are in the multiframe (see the discussion for claims 1 and 10) having a plurality of frames.

Regarding claim 30, Hamalainen discloses a method of receiving a data stream (FIG. 2) including both real-time data (speech) going to a speech processing (3) and non-real time data going to a buffer (9) in a single time slot (a time period of multiframe, col. 4, line 33).

Regarding claim 31, refer to the discussion for claim 29.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen et al (U.S. Patent No. 6,477,176).

Refer to the discussion for claim 1.

However, Hamalainen does not explicitly teach that the data from a computer (6) is multimedia. It will be apparent to those of skill in the art that the computer could transmit and receive multimedia such as voice, video image, and data.

Therefore, it would have been obvious to one having ordinary skill in the art to transmit a first type (video) from the computer, second type (speech) from a microphone (1) and third type data (data) from the computer.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen et al (U.S. Patent No. 6,477,176) in view of Gudmundson (U.S. Patent No. 5,341,397).

Refer to the discussion for the claim 1.

However, Hamalainen discloses that the invention is generally implemented in GSM (TDMA) and thus, does not explicitly teach that the system could be applicable on a CDMA transmission method. Gudmundson discloses a DTX on a CDMA transmission system.

Those of skill in the art would have been motivated to apply a CDMA protocol using a single spreading code to each mobile for the DTX of Hamalainen to take advantage of using the CDMA such as increasing the system capacity and reducing interference. Therefore, it would have been obvious to one having ordinary skill in the art to apply a CDMA protocol to the DTX of Hamalainen.

10. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen et al (U.S. Patent No. 6,477,176) in view of Feldman (U.S. Patent No. 6,393,000).

Refer to the discussion for claims 2 and 7.

However, Hamalainen differs from the present application in that the controller receives the timing information from the VAD, while the present application receives it from the speech coding system.

Feldman teaches a speech coder (10 in FIG. 2) for a method of transmission of data during absence of speech signal, wherein a VAD is incorporated into the coder.

Those of skill in the art would have been motivated by Feldman to integrate the VAD (4) of Hamalainen into the speech coding system (speech processing circuit 3) to reduce a occupying space by combining the two circuitries.

Therefore, it would have been obvious to one having ordinary skill in the art for the controller of Hamalainen to receive the timing information from the speech processing circuit integrated with the VAD (speech coding system).

Response to Arguments

11. Applicant's arguments filed 06/09/2005 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant argues that the reference does not teach a single time slot including speech and data. Applicant further argues that Examiner says that there is a single frame with data and speech. Examiner disagrees.

The time slot is not defined and limited in the claim, thus, Examiner interprets the definition of a single time slot as broad as possible.

The reference teaches that output data stream comprising real-time data (speech) and non-real time data (data) are transferred through frames for a channel, e.g., the first frame for the channel has speech information, the second frame for the channel has data, if speech information is not available in the second frame. In that case, a period of a single frame is interpreted as a single time slot and the speech information and data, respectively is interpreted as the part of the output stream.

Examiner does not say that the single frame has speech and data, because the claim does not recite that the single time slot has speech and data together.

Regarding claims 7, 14, 22, and 25-31, refer to the discussion for claim 1 above.

Regarding claims 12 and 13, Applicant argues that the Examiner's statement grows out of the Examiner's own thinking based on impermissible hindsight in view of Applicant's disclosure. Examiner disagrees. With reference to the claim rejection, the Examiner's conclusion of obviousness is not based upon impermissible hindsight reasoning,

Applicant further argues that Examiner mischaracterize that the reference relates to a computer, when in fact it relates to a mobile communication system, which would not ordinarily include video. Examiner disagrees. With reference to the claim rejection, the reference does not explicitly teach that the data from a computer (6) is multimedia. It will be apparent to those of skill in the art that the computer could transmit and receive multimedia such image, video and data through the wireless channel, when the speech information for the microphone is not available.

Therefore, it would have been obvious to one having ordinary skill in the art to transmit a first type (video) from the computer, second type (speech) from a microphone (1) and third type data (data) from the computer.

Regarding claim 15, Applicant argues that there is no teaching in the reference of an indication in the header that both the packet data and speech data are present in a single dual mode channel. Examiner disagrees. Examiner interprets that the frame header in the claim does not include information indicating both packet data and the

speech data, but the header indicates that both the packet data and the speech data being in a single dual mode channel.

With reference to the claim rejection, the header (D-ID) in the data signal (FIG. 3) indicates that both the packet data and the speech data being in a single dual mode channel, because the packet data is inserted into a frame instead of the speech data when the speech data is not available. Therefore, if the packet data is present in the channel, the speech data is also present on the channel. Examiner interprets that the frame header in the claim does not include information indicating both packet data and the speech data, but the header indicates that both the packet data and the speech data being in a single dual mode channel.

Regarding claim 16, Applicant argues that the claim specifically recites slots with a frame, i.e., a frame has more than a slot. Examiner disagrees. The claim recites (lines 8-9) that “a channel that occupies more than one slot in a transmission time frame.” Examiner interprets that the slot is a frame and the transmission time frame is a period of multi-frame (refer to the response to the argument of claim 1) since the claimed subject matter “transmission time frame” is not defined or limited in the claim.

Regarding claim 17, Examiner interprets that each time segment is a frame and the time frame is a period of multi-frame since the claimed subject matter “the time segments and the time frame” is not defined or limited in the claim.

For the reasons as discussed above, Examiner believes that the claim rejection is proper.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

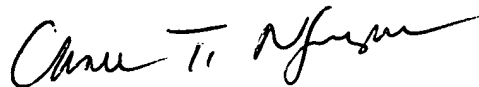
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-2723139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Hyun

08/19/2005



CHAU NGUYEN
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